

NEW COMBINATIONS IN THE LICHEN GENERA  
HYPOTRACHYNA AND PARMELINA (PARMELIACEAE)

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While preparing a treatment of the lichen family Parmeliaceae for the state of Maryland, it became evident that combinations for two of the species had not been formed in the literature. During a discussion of the problem with Dr. Mason E. Hale, Jr., Botany Department, Smithsonian Institution, it was decided that I should publish the combinations as soon as possible.

1. Hypotrachyna pustulifera (Hale) Skorepa, comb. nov.

Parmelia pustulifera Hale, Brittonia 24:23. 1972.

Type: United States: Georgia; Rockdale Co., Mt. Arabia, on conifers, 300 m, April 1964, M. E. Hale 30865 (Holotype: US; Isotypes: TNS, UPS).

Hypotrachyna pustulifera, as the name indicates, is a pustulate species. It is gray, 4-7 cm across, has elongate, narrow lobes, and the lower side is black with dichotomously branched rhizines.

This species previously had been identified as Hypotrachyna (Parmelia) formosana (Zahlbr.) Hale. Hale (1972) recognized H. pustulifera as distinct, because it is UV- (lacking lichexanthone), while H. formosana contains this substance in the cortex and is UV bright orange. Furthermore, H. formosana lacks atranorin but contains physodic acid; in H. pustulifera, physodic acid is absent, and atranorin is present. Hale also illustrated differences in the fine structure of the cortex of the two species.

The ranges of these species differ in that H. formosana is known from Mexico to Peru and Brazil, India, southeastern Asia, Japan, and Africa; H. pustulifera appears to be endemic to the southeastern United States, where it occurs on trees and rarely on rocks.

2. Parmelina minarum (Vain.) Skorepa, comb. nov.

Parmelia minarum Vain., Acta Societatis pro Fauna et Flora Fennica 7:48. 1890.

Type: Brazil: Sitio, Minas Gerais, Vainio, Lichenes Brasilienses Exsiccati 1040 (Holotype: Vainio Herbarium 2689, TUR; Isotypes: BM, FH, UPS).

Parmelina minarum (meaning of Minas Gerais) is a small (3-7 cm broad), gray, isidiate species. The lobes are mostly sublinear, 1-3 mm wide and ciliate. The lower side is black with simple to sparsely branched rhizines.

This species has a pantemperate and montane pantropical distribution. In the United States it occurs from Texas to Florida and Pennsylvania (Hale, 1976). It grows on both acidic rocks and trees in open woods.

Parmelina minarum has been identified as Parmelina (Parmelia) dissecta (Nyl.) Hale, but P. dissecta is now considered a synonym of Parmelina horrescens (Tayl.) Hale. These species are morphologically similar, and they share the same range, but they differ in chemistry. In P. minarum the medulla is C rose, KC red (gyrophoric acid present but the "horrescens" unknown absent); in P. horrescens the medulla is C-, KC rose or red (sometimes a trace of gyrophoric acid present, "horrescens" unknown present). See Hale (1971, 1976) for more information on these species.

#### Literature Cited

- Hale, M. E., Jr. 1971. Modern-Smithsonian Expedition to Dominica: The Lichens (Parmeliaceae). *Smithsonian Contrib. Bot.* 4: 1-25.
- \_\_\_\_\_. 1972. Parmelia pustulifera, a new lichen from southeastern United States. *Brittonia* 24: 22-27.
- \_\_\_\_\_. 1976. A monograph of the lichen genus Parmelina Hale (Parmeliaceae). *Smithsonian Contrib. Bot.* 33: 1-60.